

ABSTRACT

A method for producing a cast aluminum alloy article having high strength and/or toughness is provided. The method includes providing a molten aluminum alloy, centrifugally casting the molten aluminum alloy to form a cast body; and hot isostatically processing the cast body to form a hipped body. The hipped body may optionally be solution heat treated to form a heat treated body, which may subsequently be precipitation hardened to further enhance the properties of the cast product as desired. The method allows the production of cast aluminum alloy articles having physical and mechanical properties similar to those obtained for articles produced from corresponding aluminum alloy chemistries by wrought techniques.

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